



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,242	03/03/2004	Christo Brand	EPTD / 52	4768
26875 7590 10/30/2007 WOOD, HERRON & EVANS, LLP 2700 CAREW TOWER 441 VINE STREET CINCINNATI, OH 45202			EXAMINER DOVE, TRACY MAE	
			ART UNIT . 1795	PAPER NUMBER
			MAIL DATE 10/30/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/792,242

Applicant(s)

BRAND, CHRISTO

Examiner

Tracy Dove

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Action is in response to the communication filed on 10/5/07. Applicant's arguments have been considered, but are not persuasive. Claims 1-3 and 5-7 are pending and remain rejected.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/5/07 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroda et al., US 5,354,629 in view of the background section of the present specification and further in view of Rosansky et al., US 4,482,615.

Kuroda teaches a battery having a spiral electrode unit comprising a separator laminated between a cathode and an anode rolled into a spiral shape (abstract). Figure 1 shows a lithium anode 1 with a rectangular anode terminal tab 2 connected to the anode 1 by tape 3 on both sides. The anode terminal tab is located 180 mm down the 230 mm length of the anode (3:33-40). As

Art Unit: 1795

shown in Figure 1, anode tab 2 and tape 3 are located above the bottom edge of the anode 1.

Figure 2 shows a cathode 4 having a tab 5 and a tape 6.

Kuroda does not explicitly teach a prismatic cell having two long sides and two narrow sides or that a metal wire is extended along the long axis of the anode.

However, the present specification discloses that spiral electrode units are known for use in a prismatic battery. Furthermore, the background section of the present specification (page 3) teaches prismatic cells can be formed by winding or folding an elongated anode and an elongated cathode with a separator there between. Typical chemistry for the prismatic battery is lithium/manganese dioxide. Kuroda teaches a spiral electrode unit and a lithium/MnO₂ battery chemistry (8:1-2). Therefore, one of skill would have been motivated to use the spiral wound lithium/MnO₂ battery unit in a prismatic battery because it is known in the art that spiral wound lithium/MnO₂ units may be accommodated in prismatic shaped batteries.

The background also teaches a metal wire which runs the length of the anode is known (page 3). Furthermore, Rosansky teaches a lithium anode comprising a wire 12 which runs the length of the anode and a tab 14 (Figure 6). The tab can be any conductive metal (2:43-45). A cell not utilizing a lithium anode employing the wire has erratic stability under forced discharge conditions which can result in bulging, venting and even possible cell rupture (3:14-19).

Therefore, one of skill would have been motivated to provide the metal wire of Rosansky in the strip anode of Kuroda to prevent bulging, venting and cell rupture during discharge.

Furthermore, the present specification (background) teaches such metal wires are known.

Response to Arguments

Applicant's arguments filed 9/10/07 have been fully considered but they are not persuasive. Applicant argues the Kuroda reference does not disclose an insulating tape on the anode on the opposite side of the anode tab as claimed in the pending application. Applicant states the insulating tape cannot touch the anode tab. However, the claimed invention does not require that the insulating tape not touch the anode tab. At least claim 1 does not contain any limitations regarding the top or side edges of the insulating tape (or the tab). Applicant again discusses tape 6. However, tape 6 is not applied to the anode, but is applied to the cathode. Furthermore, this argument is not persuasive because Figure 1 of Kuroda shows a lithium anode 1 with a rectangular anode terminal tab 2 connected to the anode 1 by tape 3 *on both sides*. The anode terminal tab is located 180 mm down the 230 mm length of the anode (3:33-40). As shown in Figure 1, anode tab 2 and tape 3 are located above the bottom edge of the anode 1. Figure 2 shows a cathode 4 having a tab 5 and a tape 6. The claims do not exclude an insulating tape attached to both sides of the anode. Applicant does not provide any arguments regarding tape 3 of Kuroda.

Applicant's arguments regarding impedance are not persuasive because they are not commensurate in scope with the claimed invention. Furthermore, Applicant's arguments regarding the battery design of Kuroda are not persuasive because the arguments do not distinguish the claimed invention from the Kuroda reference. Applicant asserts Kuroda teaches away from the claimed invention and there can be no suggestion to modify the structure in Kuroda to form a prismatic cell. However, neither assertion is properly supported by evidence. As stated by the Examiner, the present specification discloses that spiral electrode units are

Art Unit: 1795

known for use in a prismatic battery. Furthermore, the background section of the present specification (page 3) teaches prismatic cells can be formed by winding or folding an elongated anode and an elongated cathode with a separator there between. Typical chemistry for the prismatic battery is lithium/manganese dioxide. Kuroda teaches a spiral electrode unit and a lithium/MnO₂ battery chemistry (8:1-2). Therefore, one of skill would have been motivated to use the spiral wound lithium/MnO₂ battery unit in a prismatic battery because it is known in the art that spiral wound lithium/MnO₂ units may be accommodated in prismatic shaped batteries.

Applicant has not addressed the motivation statement provided by the Examiner.

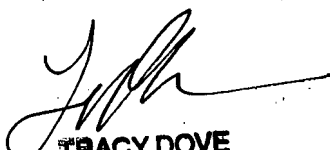
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is 571-272-1285. The examiner can normally be reached on Monday-Thursday (9:00-7:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 26, 2007


TRACY DOVE
PRIMARY EXAMINER